

**REMARKS****STATUS OF APPLICATION**

No claims have been added or canceled in this paper. Thus, claims 1-19 and 21-29 are pending in the present application.

Applicant respectfully requests that the Office allow entry of the amendment to claim 15 and that the amended claim be reconsidered. Applicant also respectfully submits that reconsideration of claim 15 would require no additional search by the Office.

**ALLOWABLE SUBJECT MATTER**

The indication in the Office Action that claims 3, 19, 21-24 and 26-29 are allowed is noted with appreciation.

**DRAWINGS**

Applicant notes that the Office Action contains no indication on the acceptability of the drawings. In the absence of an indication otherwise, Applicant considers the drawings to have been accepted.

**35 USC § 102 REJECTIONS****Claims 10 and 11 are allowable over Bode**

Claims 10 and 11 stand rejected under 35 U.S.C. § 102(e), as being anticipated by U.S. Patent Application Publication No. 2002/0157837 of Bode *et al.* ("Bode"). Applicant respectfully submits that the rejection is improper because Bode fails to disclose each and every limitation of the claimed invention.

An anticipating reference by definition must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. *In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). To the extent the Examiner relies on principles of inherency in making the anticipation rejections in the Office Action, inherency requires that the asserted proposition necessarily flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Int. 1987); *In re King*, 231 U.S.P.Q. 136, 138 (Fed. Cir. 1986). It is not enough that a reference could have, should have, or would have been used as the claimed invention. "The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Oelrich*, at 326, quoting *Hansgirk v. Kemmer*, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; see also *Skinner*, at 1789. "Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Skinner*, at 1789, citing *Oelrich*. Where anticipation is found through inherency, the Office's burden of establishing *prima facie* anticipation includes the burden of providing "...some evidence or scientific reasoning to establish the reasonableness of the examiner's belief that the functional limitation is an inherent characteristic of the prior art." *Skinner* at 1789.

Independent claim 10 recites "each screen section comprises a flow restriction element capable of imposing a known restriction on the communication of fluid flow, thereby regulating the pressure profile along the production tubular length" (emphasis added). The Office alleges that Bode's flow control apparatuses 54-56 are the claimed flow restriction element (Detailed Action, p. 2, l. 26). The Office further alleges:

It should be noted that the operator would known [sic] the flow restriction through a wellbore screen prior to insertion into the wellbore thus would use a screen that had a flow restriction that was within the range desired for the wellbore.

(Detailed Action, p. 2, ll. 29-32). Applicant respectfully asserts that the Office has fundamentally misconstrued the teachings of Bode. Bode expressly teaches that dynamic changes can occur in a wellbore after the screen has been put in place and discusses that a screen having a known flow restriction is inferior to its apparatus:

[S]uch an apparatus can only be adjusted at the well surface and thereafter, cannot be re-adjusted to account for dynamic changes in fluid pressure once the device is inserted into a wellbore. Therefore, an operator must make assumptions as to the well conditions and pressure differentials that will be encountered in the reservoir and preset [the apparatus] according to the assumptions.

(p. 1, ¶ 0009, emphasis added). This is one of the problems Bode sets out to address by providing the adjustable flow control apparatuses 54-56. Bode teaches that the operator does not know the degree of flow restriction that is required before the screen is placed into the wellbore. Thus, using “a flow restriction element capable of imposing a known restriction” would be counter to the teachings of Bode. Accordingly, Bode cannot anticipate claim 10.

Further, the Office alleges that “Bode discloses using a gravel/sand packed wellbore screen” (Detailed Action, p. 3, l. 4). Claim 10, however, requires “the flow restriction element is selected from the group comprising: sand packed sections within the screens, wire mesh packed sections within the screens and holes in a base pipe” (emphasis added). The Office alleges Bode’s flow control apparatuses 54-56 are the claimed flow restriction element (Detailed Action, p. 2, l. 26). Thus, using the Office’s construction, Bode fails to anticipate claim 10 because the gravel/sand packed wellbore screen is not the claimed flow restriction element. Thus, for yet another reason, Bode fails to anticipate claim 10.

Further, claim 10 is not rendered obvious by Bode. Bode teaches away from "a flow restriction element capable of imposing a known restriction", as required by claim 10. Bode expressly teaches that a screen having a known flow restriction is inferior to its apparatus and, therefore, teaches away from the claimed invention. There can be no motivation or suggestion to combine references as a matter of law where one of the references teaches away from the claimed invention. *In re Fine*, 5 U.S.P.Q.2d (BNA) 1596, 1599 (Fed. Cir. 1988); *In re Gordon*, 221 U.S.P.Q. (BNA) 1125, 1127 (Fed. Cir. 1984). Thus, Bode cannot render claim 10 obvious.

Claim 11 depends from claim 10. Accordingly, the remarks provided above concerning claim 10 apply equally to claim 11.

Therefore, it is respectfully requested that the rejection of claims 10 and 11 under 35 U.S.C. § 102(e), as being anticipated by Bode, be reconsidered and withdrawn.

#### **Claims 13 and 14 are allowable over White**

Claims 13 and 14 stand rejected under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent No. 2,083,625 ("White"). The rejection is improper because White fails to disclose each and every limitation of the claimed invention.

Claim 13 recites "a gravel pack creating a progressively decreasing substantially radial flow restriction along its length." The Office alleges that White teaches this limitation in FIG. 7 thereof. Applicant respectfully asserts that the Office has fundamentally misconstrued the teachings of White. In regard to FIG. 7, White merely teaches that "[a] measured quantity of gravel 41...form[s] a foraminate bed 43 separating the liner perforations from the well sands" (p. 2, right col. 1. 74, through p. 3, left col., l. 14). White is silent as to any aspect of the foraminate bed 43 "creating a progressively decreasing substantially radial flow restriction along its length".

as required by claim 13. Thus, White fails to disclose or suggest all of the claimed limitations. Accordingly, claim 13 is allowable over White.

Claim 14 depends from claim 13. Accordingly, the remarks provided above concerning claim 13 apply equally to claim 14.

Therefore, it is respectfully requested that the rejection of claims 13 and 14 under 35 U.S.C. § 102(b), as being anticipated by the White patent, be reconsidered and withdrawn.

#### **Claim 15 is allowable over West**

Claim 15 stands rejected under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent No. 2,597,554 (the West patent). Claim 15, as amended herein, recites "the first gravel pack section creates a substantially radial flow restriction upon fluid production that is different from the substantially radial flow restriction upon fluid production of the second gravel pack section along a generally horizontal well length" (emphasis added). West neither discloses nor suggests any aspect of a horizontal well or a length thereof. Accordingly, claim 15 is allowable over West.

Therefore, it is respectfully requested that the rejection of claim 15 under 35 U.S.C. § 102(b), as being anticipated by West, be reconsidered and withdrawn.

#### **35 USC § 103 REJECTIONS**

##### **Claims 1, 2, and 7-9 are allowable over West in view of Daneshy**

Claims 1, 2, and 7-9 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over West in view of U.S. Patent No. 5,375,661 to Daneshy *et al.* ("Daneshy"). The rejection is

improper because the cited references fail to disclose or suggest all of the claimed limitations and the cited references are not properly combinable.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out

and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

Claim 1 recites "the first gravel pack section imposes a substantially radial flow restriction that is different at a heel end of a horizontal wellbore from a substantially radial flow restriction at a toe end of the horizontal wellbore imposed by the second gravel pack section." Applicant acknowledges with appreciation the indication by the Office on the record that West fails to disclose "different areas of flow restrictions being in the heel and toe of a horizontal wellbore" (Detailed Action, p. 5, ll. 1-2). The Office, therefore, relies on Daneshy to teach the heel and toe of a horizontal wellbore having different flow restrictions (Detailed Action, p. 5, ll. 7-9). Applicant respectfully submits that Daneshy fails to teach a substantially different radial flow restriction at the toe end rather than at the heel end. Rather, Daneshy merely teaches that an intermediate segment 28 of gravel pack can be cemented to "substantially prevent fluid flow from occurring through segment 28 of annulus 22 from either of segments 24 and 26 of annulus 22 to the other of segments 24 and 26 of annulus 22" (col. 4, ll. 36-44). Daneshy does not, however, teach that a segment at a heel end would have a different restriction than a segment at a toe end. In fact, Daneshy fails to discuss any relationship between the segments 24, 26, 28 and

either a heel or a toe end of the wellbore. Further, Daneshy's figure only shows the heel end of the wellbore and does not illustrate the toe end. Thus, Daneshy fails to disclose or suggest "the first gravel pack section imposes a substantially radial flow restriction that is different at a heel end of a horizontal wellbore from a substantially radial flow restriction at a toe end of the horizontal wellbore imposed by the second gravel pack section", as required by claim 1.

Even if the cited references taught or suggested all of the claimed limitations, which Applicant disputes, the references are not properly combinable. The Office alleges that the motivation to combine stems from the ability "to control the pressure differential between the heel and toe of the horizontal wellbore [and] thus control the draw on the formation of interest" (Detailed Action, p. 5, ll. 9-10). As discussed above, however, Daneshy is silent with regard to having a different flow restriction at the toe of the horizontal wellbore and to any possible benefits derived therefrom. Thus, the cited references cannot provide any motivation to combine nor reasonable expectation of success. It is respectfully submitted, therefore, that any attempt to assert that the cited references disclose or suggest the claimed invention as a whole is necessarily based on an improper use of hindsight using Applicant's disclosure as a roadmap. The rejection of claim 1 is therefore improper and should be withdrawn.

Claims 2 and 7-9 depend from claim 1. Accordingly, the remarks provided above concerning claim 1 apply equally to claims 2 and 7-9.

Therefore, it is respectfully requested that the rejection of claims 1, 2, and 7-9 under 35 U.S.C. § 103(a), as being unpatentable over the West patent in view of Daneshy, be reconsidered and withdrawn.



**Claims 4-6 are allowable over West in view of Daneshy and Bode**

Claims 4-6 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the West patent in view of Daneshy (as applied to claim 1) and further in view of Bode. The rejection is respectfully traversed for the reasons set forth below.

The Office alleges that West and Daneshy disclose all of the limitations of claim 4 except “a plurality of flow restricting sections that are capable of imposing a predetermined flow restriction upon the fluid production flowing through the screen sections” (Detailed Action, p. 5, l. 29, through p. 6, l. 2). Claim 4 depends from claim 1. Thus, as in the § 103(a) rejection of claim 1, the Office relies on the Daneshy patent to teach the heel and toe of a horizontal wellbore having different flow restrictions. As discussed above, Daneshy fails to disclose or suggest this limitation and, thus, claim 4 is allowable over the cited references for the same reasons set forth above concerning the § 103(a) rejection of claim 1.

While the Office alleges that Bode teaches “a sand screen having a plurality of flow restricting sections capable of imposing a predetermined flow restriction upon fluid production flowing substantially radially through the sand screen sections” (emphasis added), Applicant respectfully submits that Bode teaches away from such a configuration. As discussed above concerning the 102(e) rejection of claim 10, Bode expressly teaches that a screen having a predetermined flow restriction is inferior to its apparatus. This is one of the problems Bode sets out to address by providing the adjustable flow control apparatuses 54-56. Bode teaches that the operator does not know the degree of flow restriction that is required before the screen is placed into the wellbore. Thus, using “a flow restriction element capable of imposing a predetermined restriction” would be counter to the teachings of Bode. Thus, the cited references cannot render claim 4 obvious because Bode teaches away from the claimed invention.

It is, therefore, respectfully requested that the rejection of claims 4-6 under 35 U.S.C. § 103(a), as being unpatentable over West in view of Daneshy and Bode, be reconsidered and withdrawn.

**Claim 12 is allowable over Bode in view of White**

Claim 12 stands rejected under 35 U.S.C. § 103(a), as being unpatentable over Bode in view of White. The Office relies on Bode to teach all of the limitations of claim 12 except “the gravel pack having a progressively decreasing substantially radial flow restriction along its length” (Detailed Action, p. 6, ll. 27-29). Claim 12 depends from claim 10. As discussed above regarding claim 10, Bode teaches away from “a flow restriction element capable of imposing a known restriction”, as required by claim 12. Thus, the cited references cannot render claim 12 obvious.

Further, the Office relies on White’s FIG. 7 to teach “a gravel pack creating a progressively decreasing substantially radial flow restriction along its length” (Detailed Action, p. 7, ll. 2-3). As discussed above concerning the rejection of claim 13, White is silent with regard to the claimed configuration. Thus, for yet another reason, the cited references cannot render claim 12 obvious.

Applicant respectfully submits that any attempt to assert that the cited references disclose or suggest the claimed invention as a whole is necessarily based on an improper use of hindsight using Applicant’s disclosure as a roadmap. The prior art simply does not provide any motivation for one skilled in the art to combine the cited references, nor any reasonable expectation of success, absent Applicant’s disclosure.

It is, therefore, respectfully requested that the rejection of claim 12 under 35 U.S.C. § 103(a), as being unpatentable over Bode in view of West, be reconsidered and withdrawn.

**Claims 16-18 are allowable over West in view of Bode**

Claims 16-18 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the West patent in view of the Bode patent. The rejection is respectfully traversed for the reasons set forth below.

The Office relies on Bode to teach "a plurality of flow restricting sections that are capable of imposing a predetermined flow restriction upon the fluid production flowing through the screen sections" (Detailed Action, p. 7, ll. 15-17). However, as discussed above concerning the § 103(a) rejection of claim 4, Bode teaches away from such a configuration. Accordingly, the cited references cannot render claims 16-18 obvious.

Applicant respectfully submits that any attempt to assert that the cited references disclose or suggest the claimed invention as a whole is necessarily based on an improper use of hindsight using Applicant's disclosure as a roadmap. The prior art simply does not provide any motivation for one skilled in the art to combine the cited references, nor any reasonable expectation of success, absent Applicant's disclosure.

It is, therefore, respectfully requested that the rejection of claims 16-18 under 35 U.S.C. § 103(a), as being unpatentable over West in view of Bode, be reconsidered and withdrawn.

**Claim 25 is allowable over West in view of Bode and Daneshy**

Claim 25 stands rejected under 35 U.S.C. § 103(a), as being unpatentable over West in view of Bode and Daneshy. The rejection is respectfully traversed for the reasons set forth below.

The Office relies on Bode to teach "a plurality of flow restricting sections that are capable of imposing a predetermined flow restriction upon the fluid production flowing through the screen sections" (Detailed Action, p. 8, ll. 20-22). However, as discussed above concerning the § 103(a) rejections of claims 4 and 16-18, Bode teaches away from such a configuration. Accordingly, the cited references cannot render claim 25 obvious.

Applicant respectfully submits that any attempt to assert that the cited references disclose or suggest the claimed invention as a whole is necessarily based on an improper use of hindsight using Applicant's disclosure as a roadmap. The prior art simply does not provide any motivation for one skilled in the art to combine the cited references, nor any reasonable expectation of success, absent Applicant's disclosure.

It is, therefore, respectfully requested that the rejection of claim 25 under 35 U.S.C. § 103(a), as being unpatentable over West in view of Bode and Daneshy, be reconsidered and withdrawn.

**CONCLUSION**

Wherefore, in view of the foregoing remarks, this application is considered to be in condition for allowance, and an early reconsideration and issuance of a Notice of Allowance are earnestly solicited. The Examiner is invited to contact Daren C. Davis at (817) 578-8616 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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